



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,086	08/19/2003	Arkady Glukhovsky	P-2388-US1	3064
27130	7590	09/24/2004	EXAMINER	
EITAN, PEARL, LATZER & COHEN ZEDEK LLP 10 ROCKEFELLER PLAZA, SUITE 1001 NEW YORK, NY 10020			PRUCHNIC, STANLEY J	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/643,086

Applicant(s)

GLUKHOVSKY ET AL.

Examiner

Stanley J. Pruchnic, Jr.

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/19/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/806,714.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Shouji *et al.* (U. S. Patent No. 4786969 A, hereinafter **Shouji**).

**Shouji** discloses a method for sensing a temperature change in an environment, the method comprising:

introducing into the environment an image sensor (Fig. 1) having an image sensing module (3R, 3G, 3B);

sensing the dark current noise (Col. 2, Lines 28-43) of the image sensing module;

obtaining a dark current data sample (DATA1, DATA2); and

comparing (Col. 5, Lines 37-48) a dark current data sample (DATA2) to a previous sample (DATA1) as claimed by Applicant in Claim 1.

**Shouji** discloses a system for sensing a temperature change in an environment comprising:

an image sensor (Fig. 1; Col. 3, Lines 23-54);  
an integrating unit 6; and  
a change detector 7;  
said image sensor being introduced into an environment (the ambient environment); and

said integrating unit receiving dark current noise samples (DATA1, DATA2) from the image sensor, and said change detector detecting changes (differences) between dark current noise samples as claimed by Applicant in Claim 2.

3. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Wand *et al.* (U. S. Patent No. 6267501 B1, hereinafter **Wand**).

**Wand** discloses a method for sensing a temperature change in an environment, the method comprising:

introducing into the environment an image sensor (Fig. 1a) having an image sensing module (1);  
sensing the dark current noise (of "blind" pixels 3) of the image sensing module;  
obtaining a dark current data sample (sampling current through resistor 9 during integration time results in a voltage difference on the "integrator" capacitor 21); and  
comparing a dark current data sample to a previous sample (in feedback loop of Fig. 6) as claimed by Applicant in Claim 1.

**Wand** discloses a system for sensing a temperature change in an environment comprising:

an image sensor (Fig. 1a);  
an integrating unit 21 (Col. 6, Lines 1-5; Figs. 5-6); and

Art Unit: 2859

a change detector (Col. 7, Lines 18-47; Figs. 5-6);  
said image sensor being introduced into an environment (Col. 7, Lines 10-14;  
Col. 10, Lines 48-57); and  
said integrating unit receiving dark current noise samples (Col. 7, Lines 14-20;  
Col. 6, Lines 1-5) from the image sensor, and said change detector detecting changes  
between dark current noise samples as claimed by Applicant in Claim 2.

**Wand** discloses a method for sensing a temperature change in an environment,  
the method comprising:

introducing into the environment an image sensor (Fig. 1a);  
sensing the dark current noise of the image sensor;  
obtaining a dark current data sample; and  
determining a change in temperature (Col. 7, Lines 36-48) as claimed by  
Applicant in Claim 3.

**Wand** discloses a device for sensing a temperature change in an environment,  
the device comprising:

an image sensor (Fig. 1a);  
a controller (Col. 7, Lines 18-47; Figs. 5-6) to accept the dark current noise of the  
image sensor, to obtain a dark current data sample, and to determine a change in  
temperature (Col. 7, Lines 36-48) as claimed by Applicant in Claim 4.

Art Unit: 2859

### **Conclusion**

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in a form PTO-892 and not mentioned above disclose related temperature measurement devices and methods.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stanley J. Pruchnic, Jr., whose telephone number is **(571) 272-2248**. The examiner can normally be reached on weekdays (Monday through Friday) from 7:30 AM to 4:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. F. Gutierrez can be reached at **(571) 272-2245**.

The **Official FAX** number for Technology Center 2800 is **(703) 872-9306** for **all official communications**.

Any inquiry of a general nature or relating to the status of this application or proceeding may be directed to the official USPTO website at **<http://www.uspto.gov/>** or you may call the **USPTO Call Center** at **800-786-9199** or 703-308-4357. The Technology Center 2800 Customer Service FAX phone number is (703) 872-9317.

The cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov/)), from the Office of Public Records and from commercial sources.

Private PAIR provides external customers Internet-based access to patent application status and history information as well as the ability to view the scanned images of each customer's own application file folder(s).

For inquiries relating to Patent e-business products and service applications, you may call the **Patent Electronic Business Center (EBC)** at **703-305-3028** or toll free at **866-217-9197** between the hours of **6 a.m. and midnight Monday through Friday EST**, or by e-mail at: **[ebc@uspto.gov](mailto:ebc@uspto.gov)**. Additional information is available on the Patent EBC Web site at: **<http://www.uspto.gov/ebc/index.html>**.



**DIEGO F. F. GUTIERREZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800**



**Stanley J. Pruchnic, Jr.  
9/21/04**